

Hillman

HDC-1160

CD/MP3 PLAYER WITH FM/MW TUNER

www.hillman-electronics.com

OPERATING INSTRUCTION

SAFETY INFORMATION

Thank you for purchasing this product. Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, keep this manual in a safe place for future reference.

PRECAUTIONS

- Use only in a 12-volt DC negative-ground electrical system.
- Disconnect the vehicle's negative battery terminal while mounting and connecting the unit.
- When replacing the fuse, be sure to use one with an identical amperage rating.
- Using a fuse with a higher amperage rating may cause serious damage to the unit.
- DO NOT attempt to disassemble the unit. Laser beams from the optical pickup are dangerous to the eyes.
- Make sure those pins or other objects do not get inside the unit, they may cause malfunctions, or create safety hazards such as electrical shock or laser beam exposure.
- If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car become normal before operating the unit.
- Keep the volume at a level at which you can hear outside warning sounds (horns sirens, etc.).
- Stop the car before performing any complicated operation.

CD NOTES

- Playing a defective or dusty CD can cause dropouts in sound.
- Handle the disc by holding its inner and outer edges. Do not touch the surface of the unlabeled side of the disc.
- Do not touch the unlabeled side.
- Do not attach any seal, label or data protection sheet to either side of a disc.
- Do not expose a CD to direct sunlight or excessive heat.
- Wipe a dirty CD from the center outward with a cleaning cloth.
- Never use solvents such as benzine or alcohol.
- This unit can not play 3-inch (8cm) CDs. Never insert a 3-inch CD contained in the adapter or an irregularly shaped CD. The unit may not be able to eject it, resulting in a malfunction.
- ★ In addition to ordinary CDs, this unit can play back a CD-R/CD-RW/MP3/UDF/CD-TEXT.

CAUTION

Please power off this unit at once and send it back to the after-sales service center or the dealer /distributor you purchased from if one of the following symptoms is found:

- (1) Water or other obstacle enters the unit;
- (2) Smoking;
- (3) Peculiar smell.

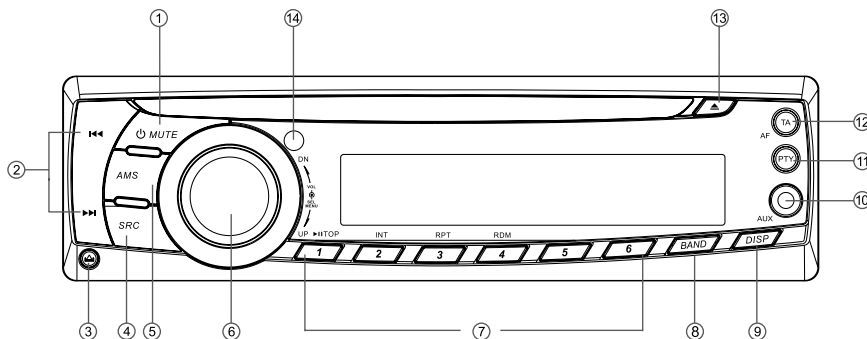
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To provide a clear demonstration and an alternative for easy understanding of the operation of this unit, graphic illustration was used. However, this illustration is not necessary printed as the actual image found on the unit.

Panel Controls

Power on : Press any button on the panel exceptand ▲ to turn on the unit.

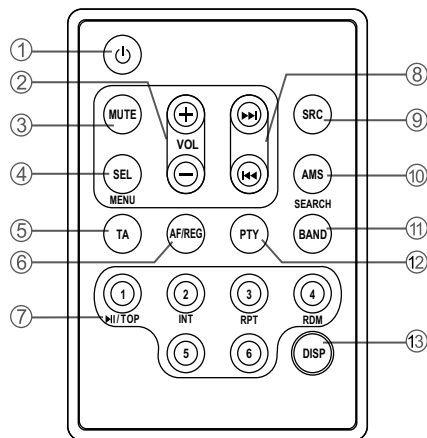
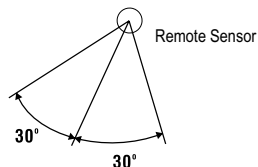


- | | | |
|--|---|--|
| <ol style="list-style-type: none"> 1. - Power on / Power off (long press) - Mute 2. - Radio tune - Track seek 3. - Panel release 4. SRC - Radio - Disc play (when disc inserted) - Aux-in - USB (when USB device connected) 5. - AMS: Radio preset scan/Radio auto preset - SEARCH: MP3 track/file/character search 6. - Rotate the knob to adjust volume level. - Push to select VOL/BAS/TRE/BAL/ | <ol style="list-style-type: none"> FAD, rotate the knob to adjust level. - Press more than 2 seconds to enter menu mode. 7. Disc playback Button 1: - Play/Pause - Top play (press more than 2 sec.) Button 2: - Intro play (10 sec.) Button 3: - Track repeat play Button 4: - Track random play Button 5: - MP3 folder down (If there are more than 1 folders) - MP3 track -10 down (long press) Button 6: - MP3 folder up (If there are more than 1 folders) - MP3 track +10 up (long press) Radio preset 1~6 | <ol style="list-style-type: none"> - Press to tune in a preset station. - Hold for more than 2 seconds to store station. 8. - Band switch: FM1 -> FM2 -> FM3 -> MW1 -> MW2 9. - Display switch/Time adjust 10. - Aux-in jack 11. - Program type - REG on/off (long press) 12. - Alternative frequency - Traffic announcements identification (long press) 13. - Disc eject 14. - Remote sensor |
|--|---|--|

REMOTE CONTROLS

Operating range

Point the remote control unit to the remote sensor when you operate with it.
The remote control can operate within a distance of 3~5m.

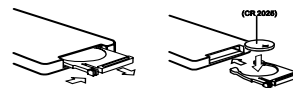


1. - Power on/off
2. - Volume
3. - Mute
4. - Press to select VOL/BAS/TRE/BAL/FAD, use volume button to adjust level.
- Press and hold it to enter Menu mode.
5. - Traffic announcements identification
6. - Alternative frequency
- REG on/off (long press)
7. - Disc Playback
Button 1: - Play/Pause
- Top play (press more than 2 sec)
Button 2: - Intro play (10 sec)
Button 3: - Track repeat play
Button 4: - Track random play
Button 5: - MP3 folder down
- MP3 track -10 down (long press)
Button 6: - MP3 folder up
- MP3 track +10 up (long press)
- Radio Preset
Press to listen to a preset station.
Press and hold to store station.
8. - Radio tune/Track seek
9. - Radio/Disc (when disc is in)/Aux-in/USB (when USB device connected)
10. - AMS: Radio preset scan/Radio auto preset
- SEARCH: MP3 track/file/character search
11. - Band switch: FM1, FM2, FM3, MW1, MW2
12. - Program type
13. - Display switch

Replacing the lithium battery of remote control unit.

When the range of the operation of the card remote control becomes short or no functions while operating. Replace the battery with a new lithium battery. Make sure the battery Polarity replacement is correct.

1. Pull out the battery holder while pressing the stopper.
2. Insert the button-type battery with the stamped(+) mark facing upward.
Insert the battery holder into the remote control.



WARNING:

- Store the battery in place where children cannot reach. If a child accidentally swallowed the battery, consult a doctor immediately.
- Do not recharge, short, disassemble or heat the battery or dispose it in a fire. Doing this may cause the battery to give off heat, crack or start a fire.
- Do not leave the battery with other metallic materials or poke the battery with tweezers or similar tools.
- When throwing away or saving the battery, wrap it in tape and insulate.

GENERAL OPERATION

Power On/Off Button

Press the POWER button to turn the unit on when the vehicle ignition switch is on. Press and hold the button to turn the unit off.

Adjust Volume level

Rotate the VOL/MENU control to adjust volume level. Rotate it clockwise to increase and anticlockwise to decrease the volume.

Audio Mute

Press the MUTE button to mute the volume from the system. "MUTE" will appear on the display panel and the volume will be muted. Press the MUTE button again, or rotate or press the VOL/MENU control to return the volume level to the setting in use before the Mute function was activated.

Audio Controls

To adjust the bass, treble, balance and fader, press the VOL/MENU control until the appropriate audio control appears on the display panel. Within five seconds, rotate the VOL/MENU control to adjust the audio settings for the selected function.

Mode Button (SRC)

Press the SRC button to change between Radio, DISC (when disc is in) or AUX play.

Auxiliary Input

To access an auxiliary device:

1. Connect the portable audio player to the AUX interface on the front panel.
2. Press the SRC button to select Aux-In mode.

Press SRC again to cancel Aux-In mode and go to the next mode.

Display Selector (DISP)

This unit can display either the clock time or radio frequency/CD player functions. Ordinarily, the radio frequency or CD player track indication is displayed, but the unit will display the time when the DISP button is pressed. The time will display for approximately 5 seconds then return to the radio or CD player function display.

Setting the Clock

The correct time of day can be set by pressing and holding the DISP button.

To set the clock, perform the following steps:

1. Turn the vehicle ignition and radio on.
2. Press the DISP button to view the clock.
3. With the clock visible on the display, press and hold the DISP button until the time display flashes.
4. Within 5 seconds, rotate the VOL/MENU control counter clockwise to adjust the minutes to the desired setting. To change

the hour, rotate the VOL/MENU control clockwise to adjust the hour to the desired time.

Using USB device

1. Connect your USB device to the USB cable which you placed in the dashboard or glove box during installation of the car radio.

When connecting a USB device, the unit will read the files automatically.

2. To remove the USB device, you should first select another source, in order to avoid damaging the USB device.

USB Notes

USB functions (flash memory type) MP3 music play

1. USB flash memory 2 in 1 support
2. Fat 12/fat 16/fat 32 is possible
 - Fat 12/16 (dir: 200 support, file: 500 support)
 - Fat 32 (dir: 200 support, file: 500 support)
3. File name: 32 byte/dir name: 32 byte /tag name: 32 byte
4. Tag (ID3 tag ver 2.0)
 - Title/artist/album: 32 byte support
5. USB 1.1/2.0 support
(It can not support USB 2.0 speed. Just, get the same speed with USB 1.1)
Not all kinds of USB devices are compatible with the unit.

CD PLAYER OPERATION

Inserting a Disc

With the label surface facing up, fully insert a compact disc into the disc slot until the mechanism engages and pulls the disc in. Play will automatically begin from the first track on the disc.

NOTE: The unit is designed for play of standard 5" (12 cm.) compact discs only. Do not attempt to use 3" (8 cm.) CD singles in this unit, either with or without an adaptor, as damage to the player and/or the disc may occur.

Disc Eject Button

Press the eject button to stop disc play and eject the disc. The unit will revert to radio operation. Discs may be ejected with the vehicle ignition switch on or off. If an ejected disc is not removed from the disc slot within 10 seconds of being ejected, the disc will be re-inserted automatically.

NOTE: To prevent a disc from accidentally being damaged, always remove the disc from the unit when disc play is finished.

CD Play/Pause Selector

Press the 1 >|| button to freeze disc playback. Press 1 >|| again to resume disc playback.

Seek Up/Next Track

Press the next track >>| button during disc play to select the beginning of the next track.

Seek Down/Previous Track

Press the previous track |<< button during disc play to select the beginning of the current track. Press twice to select the beginning of the previous track.

Cue/Review Functions

High-speed audible search to any section of the disc can be made by the Cue and Review functions. Press and hold the next track >>| button to advance rapidly in the forward direction or the previous track |<< button to advance rapidly in the backward direction.

Intro Play Selector

During disc play, press the 2/INT button to select "INT ON" and play the first 10 seconds of each track. Press 2/INT again to select "INT FOLD" and play the first 10 seconds of each track in the current folder. When a desired track is reached, press the 2/INT button to select "INT OFF" and play the current track.

Track Repeat Play Select

During disc play, press the 3/RPT button to select "RPT ON" and repeatedly play the selected track. Press 3/RPT again to select "RPT FOLD" and repeatedly play all tracks in the current folder. Repeat play will continue until 3/RPT is pressed to select "RPT OFF".

Random Play Select

During disc play, press the 4/RDM button to select "RDM ON" and play all tracks on the disc in random, shuffled order. Press 4/RDM again to select "RDM FOLD" and randomly play all songs in the current folder. In Random Play mode, you can press the tune/track buttons to select tracks in a random order instead of the normal progression. Press 4/RDM again to select "RDM OFF" and cancel Random Play mode.

TUNER OPERATION

FM/AM Band

During radio play, press the BAND button to choose between three FM and two AM bands. The indication "AM" or "FM" appears on the display panel according to your selection.

Up Tuning

Press the seek up >>| button to tune stations upward step-by-step. The current frequency will be shown in digital format on the display panel.

Press and hold the seek >>| button to the next available station.

Down Tuning

Press the seek down |<< button to tune stations downward step-by-step.

Press and hold the seek down |<< button to the previous available station.

Auto Store

Press the AMS button to scan preset stations 1-6. Hold it to automatically select six strong stations and store them in the current band. The new stations replace stations already stored in that band.

RDS (Radio Data System)

RDS service availability varies with areas. Please understand if RDS service is not available in your area, the following service is not available.

RDS Basics

AF (Alternative Frequency): When the radio signal strength is poor, enabling the AF function will allow the unit to automatically search another station with the same PI (Program Identification) as the current station but with stronger signal strength.

PS (Program Service name): The name of station will be displayed instead of frequency.

AF Mode: Press TA/AF button to switch AF mode on and off.

AF on: AF function is activated.

AF off: AF function is disabled.

Remark: AF indicator on LCD will flash until RDS information is received. If RDS service is not available in your area, turn off the AF mode.

REG Mode: Press PTY for more than 2 seconds to switch REG mode on and off.

REG on: AF function will implement the regional code (of the PI) and only stations in the current region can be tuned automatically.

REG off: AF function will ignore the regional code (of the PI) and stations in the other regions can also be tuned automatically.

CT Service (Clock Time)

When receiving an RDS station, the CT (Clock Time) service automatically adjusts the time.

Traffic Announcements

Some RDS FM stations periodically provide traffic information.

TP (Traffic Program Identification)

Broadcasting of traffic information.

TA (Traffic Announcements Identification)

Radio announcements on traffic conditions.

TA Mode: Press and hold TA/AF to turn on/off the TA function. When TA mode is turned on, the TA indicator will blink. When traffic announcement is received, the TA indicator will display. The unit will temporarily switch to the tuner mode (regardless of the current mode) and begin broadcasting the announcement at TA volume level. After the traffic announcement is over, it will return to the previous mode and volume level. When TA is turned on, SEEK, SCAN, AMS function can only be received or saved when traffic program identification (TP) code is received.

EON (Enhanced Other Networks)

When EON data is received, the EON indicator lights and the TA and AF functions are enhanced.

RDS (Radio Data System)

TA: Traffic information can be received from the current station or stations in other network.

AF: The frequency list of preset RDS stations is updated by EON data. EON enables the radio to make fuller use of RDS information. It constantly updates the AF list of preset stations, including the one that currently tuned into. If you preset a station around the area at your home, you will later be able to receive the same station at an alternative frequency, or any other station serving the same program, EON also keeps track of locally available TP stations for quick reception.

PTY Reception (Program Type)

RDS FM stations provide a program type identification signal.

Example: news, rock, info, sport, etc.

PTY Type Preset

Press PTY button once to enter the MUSIC type or press "PTY" twice to enter the SPEECH type. Then use number button ① - ⑥ to select the desired program type. The selected PTY type is shown and searching starts if no other function is selected for 2 seconds. If there is no corresponding program type, NO PTY is shown and the unit will return to normal mode.

PLAYING MP3/WMA FILES

Display Information

During playback, ID3 tag information display scrolling on the screen: FOLDER, FILE, ALBUM, TITLE, ARTIST and Track Number/Elapsed Time.

Folder Up/Down

Press the 5/DN button to go to the previous folder. Press the 6/UP button to go to the next folder.

Direct Song/File Access

1. Press the AMS button once and press the knob to enable direct track searching.
2. Rotate the VOL/MENU control to select a digit.
3. Press the VOL/MENU control to confirm entry and the tens digit will flash.
4. Rotate the VOL/MENU control to select digit.
5. Repeat above steps to enter the hundreds and thousands digit, if necessary.

NOTE: The unit will only allow the selection of digits that correspond with the number of files on the media you are searching.

6. Once the track number appears on the screen, long press the VOL/MENU control to play the selected song/file.

Searching Folders/Files

1. Press the AMS button twice and press the knob to access the file search option.
2. Rotate the VOL/MENU control to select the desired directory/song.
3. Press the VOL/MENU control to view the files inside the selected directory.
4. Rotate the VOL/MENU control to select the song/file. Long press the VOL/MENU control to play the selected song/file.

Searching by Name (CHAR-SCH)

1. Press the AMS button three times and press the knob to access the character search option.
2. Rotate the VOL/MENU control to select the characters A-Z, _ , - , + , and 0-9 for the first character.
3. Press the VOL/MENU control to confirm entry of the character and move to the next position.
4. Repeat for up to eight characters.
5. Press and hold the VOL/MENU control for 2 seconds to begin the search.
6. If a directory is found, rotate the VOL/MENU control to select the song/file in this directory/folder.
7. Press and hold the VOL/MENU control for 2 seconds to play the selected song/file. "NO MATCH" appears if there is no file beginning with the search string entered.

PLAYING MP3/WMA FILES

MP3 Overview

- MP3 is short for MPEG Audio Layer 3 and refers to an audio compression technology standard.
- This product allows playback of MP3 files on CD-R or CD-RW discs.
- The unit can read MP3 files written in the format compliant with ISO 9660. However it does not support the MP3 data written by the method of packet write.
- The unit can not read an MP3 file that has a file extension other than ".mp3".
- If you play a non-MP3 file that has the ".mp3" extension, you may hear some noise.
- In this manual, we refer to what are called "MP3 file" and "folder" in PC terminology as "Track" and "Album", respectively.
- Maximum number of directory level is 8, including the root directory. Maximum number of files and folders per disc is 256.
- The unit may not play tracks in the order of track numbers.
- The unit plays only the audio tracks if a disc contains both audio tracks and MP3 files.

- When playing a disc of 8kbps or VBR*, the elapsed playing time in the display window will not be correct and also the intro play may not function properly.
*VBR: Variable Bit Rate.

Note on creating your own CD-Rs or CD-RWs containing MP3 files

- To enjoy high quality sound, we recommend converting to MP3 files with a sampling frequency of 44.1 kHz and a fixed bit rate of 128 kbps.
- DO NOT store more than 256 MP3 files per disc.
- For ISO 9660-compliant format, the maximum allowable depth of nested folders is 8, including the root directory(folder).
- When CD-R disc is used, playback is possible only for discs which have been finalized.
- Make sure that when MP3 CD-R is burned that it is formatted as a data disc and NOT as an audio disc.
- You should not write non-MP3 files or unneeded folders along with MP3 files on

the CD-R otherwise it takes a long time until the unit starts to play MP3 files.

- With some CD-R media, data may not be properly written depending on their manufacturing quality. In this case, data may not be reproduced correctly. High quality CD-R disc is recommended.
- Up to 16 characters are displayed for the name of an Album or a Track. ID3 TAG version 1.x is required.
- Note that the unit may not play tracks in the order that you wrote them to the disc.

MENU FUNCTION

Press SEL/MENU button more than 2 seconds to enter menu mode, then each press changes the mode, rotate the knob to adjust.

TA mode

If the TA (Traffic Announcements) is turned on and there is no traffic program identification code received in the specified time, no TA/TP will display and either TA ALARM or TA SEEK will be activated.

TA ALARM : Alarm is turned on.

TA SEEK: TA SEEK is automatically activated.

MASK mode

In some cases, the AF function may be influenced by some interference, examples are signals with strong field but without the RDS data. For this reason, the unit has two options to avoid the above interference.

MASK DPI mode : Only AF which has different program identification is masked.

MASK ALL mode : The AF which has different program identification and NO RDS signal with high field strength is masked.

TA VOL mode

Rotate the knob to adjust TA volume level.

RETUNE mode

RETUNE-S or RETUNE-L is time length selection of TA SEEK retune interval.

RETUNE-S: short, TA SEEK retune interval is 45 seconds.

RETUNE-L: long, TA SEEK retune interval is 180 seconds.

Remark: RETUNE mode functions for TA during TA SEEK mode only.

DSP mode

Rotate the control to choose DSP sound effect: POP - ROCK - CLASSIC - FLAT - OFF

EPS mode

ESP 12s: Selected as CD-ESP time 12 seconds, MP3-ESP time >100 seconds.

ESP 45s: Selected as CD-ESP time 45 seconds, MP3-ESP time >100 seconds.

MULT ON/OFF

Multi Session on/off (Multi session off: mixed CD, ONE session CD; Multi session on: Mixed, Extra, multi session CD)

LOUD ON/OFF

Rotate the knob to choose loudness on or off.

WOOF ON/OFF

Rotate to choose Sub-woofer on or off.

BEEP ON/OFF

Rotate the knob to choose button beep sound on or off.

SEEK 1 / 2 mode

SEEK 1: Searching station will stop when the next station is received.

SEEK 2: Searching station will stop when |<< or >>| button is released and next station is received.

STEREO/MONO mode

Rotate to choose FM stereo or mono.

LOCAL/DX mode

Rotate the knob to choose tuner sensitivity local or distant.

VOL LAST/ADJ mode

Rotate the knob to choose power on volume mode.

VOL LAST: The turn on volume level is the volume level of latest power off.

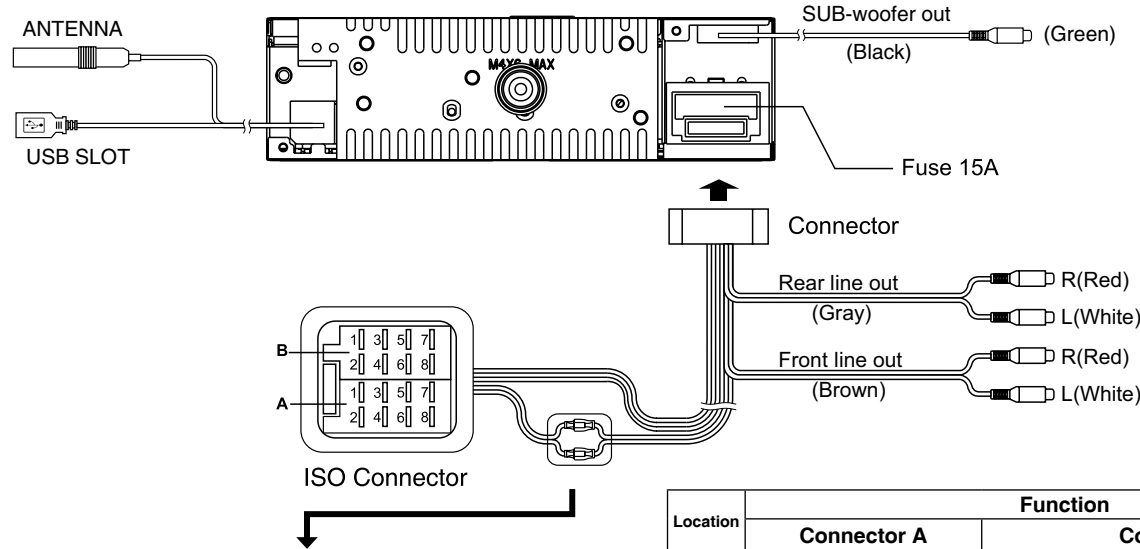
VOL ADJUST: press to enter A-VOL mode, then rotate to set the turn on volume level.

12/24 HOUR

Rotate the knob to choose clock format.

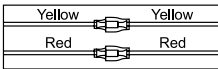
Electrical Connections

Wiring Diagram

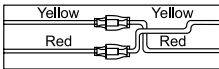


For some VW/Audi or Opel(Vauxhall) car models, you may need to modify wiring of the supplied power cord as illustrated, or else the memory of the unit may be lost after you power off. Contact your authorized car dealer before installing this unit.

Original wiring



Modified wiring

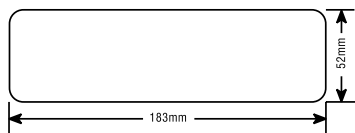


Location	Function	
	Connector A	Connector B
1		Rear Right (+) / Purple
2		Rear Right (-) / Purple with Black Stripe
3		Front Right (+) / Gray
4	Battery 12V(+) / Yellow	Front Right (-) / Gray with Black Stripe
5	ANT/AMP control / Blue	Front Left(+) / White
6		Front Left(-) / White with Black Stripe
7	ACC+ / Red	Rear Left (+) / Green
8	Ground / Black	Rear Left (-) / Green with Black Stripe

INSTALLATION GUIDE

Installation Opening

This unit can be installed in any dashboard having an opening as shown below. The dashboard should be 4.75mm - 5.56mm thick in order to be able to support the unit.

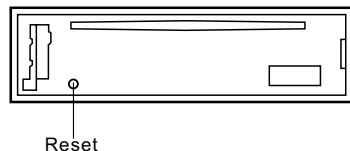


If the opening is too small, carefully cut or file as necessary until the sleeve easily slides into the opening. Do not force the sleeve into the opening or cause it to bend or bow. Check for sufficient space behind the dashboard for the unit chassis.

Reset

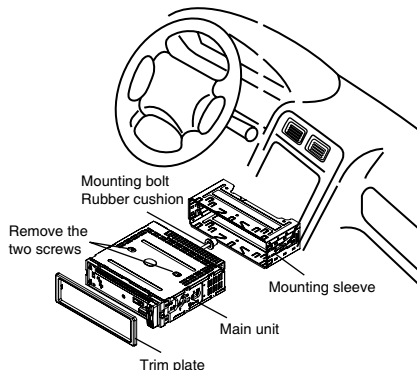
Press the RESET button with a pointed object to reset the unit to the original status.

Note: Press the RESET button will erase the clock setting and stored stations.



Installation Procedures

1. If relevant, remove any other audio system from the car.
2. Insert the mounting sleeve into the dashboard. Fix it firmly in place by folding down the metal tabs.
3. Perform the required electrical connections.
4. Then check that everything works before installing the main unit.
5. Remove the two screws on the top of the unit, otherwise, the unit will not work.
6. Install the car radio in the dashboard using the supplied screws (M5x6mm).
7. Attach the outer trim frame.
If you are not sure how to install this unit correctly, contact a qualified technician.

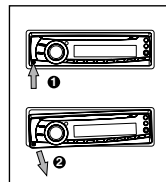


Anti-Theft System

This unit is equipped with a detachable panel. Removing this panel makes the radio totally inoperable.

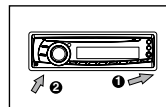
Remove the detachable panel

1. Press button.
2. Hold the part popped out and pull the panel out.
3. Gently press the button of the case and open the cover. Place the panel into the case and take it with you when you leave the car.



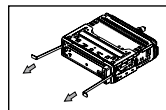
Install detachable panel

1. Fix right part of face plate in the panel slot of the unit.
2. Press down the left side of the face plate until it clicks into the panel slot.



Remove the unit

1. Switch off the power of the unit.
2. Remove the panel and the trim plate.
3. Insert both L-Keys into the hole on the front of the set until they lock.
4. Pull out the unit.



TROUBLESHOOTING

The following checklist can help you solve some problems which you may encounter when using the unit. Before consulting it, check the connections and follow the instructions in the user manual. Do not use the unit in abnormal condition, for example without sound, or with smoke or foul smell can cause fire or electric shock, immediately stop using it and call the store where you purchased it.

Problem	Possible cause	Solution
General		
The unit will not switch on.	Car ignition is not on. Cable is not properly connected. Fuse is burnt.	Turn your car key in the ignition. Check cable connection. Replace fuse with a new fuse of the same capacity.
No sound	Volume is set at minimum or the mute function is on.	Check the volume or switch the mute function off.
The unit or screen does not work normally.	The unit system is unstable.	Press the RESET button.
DISC mode		
The appliance will not play discs.	The disc is inserted incorrectly. The disc is dirty or damaged.	Disc must be inserted with the label side facing up. Clean the disc and check for damage. Try another disc.
Sound skips due to vibration.	Mounting angle is over 30°. Mounting is unstable.	Adjust mounting angle to less than 30°. Mount the unit securely with the supplied parts.
TUNER mode		
Unable to receive stations.	The antenna is not connected properly.	Connect the antenna properly.
Poor quality reception of radio station.	The antenna is not fully extended or it is broken.	Fully extend the antenna and if broken, replace it with a new one.
Preset stations are lost.	The battery cable is not properly connected.	Connect the permanent live on the unit to the permanent live on the vehicle.
USB mode		
Unable to insert USB device.	The USB device has been inserted the wrong way round.	Insert it the other way around.
The USB device cannot be read.	NTFS format is not supported.	Check that the USB file system is in FAT or FAT32 format. Due to different formats, some models of USB storage devices or MP3 players may not be read.

SPECIFICATION

General	
Power supply:	12V DC (11V-16V)
	Test voltage 14.4V, negative ground
Maximum power output:	45Wx4 channels
Continuous power output:	20Wx4 channels (4Ω, 10% T.H.D.)
Suitable speaker impedance:	4-8 ohm
Pre-Amp output voltage:	2.0V (CD play mode: 1KHz, 0 dB, 10 KΩ load)
Fuse:	15A
Dimensions(WxHxD):	178x50x160mm
Weight:	1.7kg
Aux-in:	≥ 300mV
Subwoofer-out:	2.0V

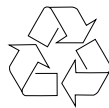
FM Stereo Radio	
Frequency range:	87.5-108.0 MHz (EUROPE)
	87.5-107.9 MHz (USA)
Usable sensitivity:	8 dBμ
Quieting sensitivity(S/N=50dB):	12 dBμ
Frequency response:	30Hz-15kHz
Stereo separation:	30dB (1kHz)
Image response ratio:	50dB
IF response ratio:	70dB
Signal/noise ratio:	55dB

MW(AM) Radio	
Frequency range:	522-1620 KHz (EUROPE)
	530-1710 KHz (USA)
Usable sensitivity(S/N=20dB):	30 dBμ

Disc Player	
System:	Disc digital audio system
Frequency response:	20Hz-20kHz
Signal/noise ratio:	>80 dB
Total harmonic distortion:	Less than 0.20% (1kHz)
Wow and flutter:	Below measurable limits
Channel separation:	>55 dB

Components	
Mounting collar	1
Machine screws M5x6mm	4
Mounting bolt (50mm)	1
Wire connector	1
Removable face plate case	1
Trim plate	1
L-key	2
Operating instructions	1
Rubber cushion	1
Remote control unit	1

Note: Specifications and the design are subject to change without notice due to improvements in technology.



PN: 127075002316